We claim:

1. A magnetic heater, comprising:

a conductive member having a conductive member first side and a conductive member second side; and

a first magnet assembly comprising a first frame and at least one magnet movably coupled to the first frame, the at least one magnet disposed a first distance adjacent the conductive member first side, wherein the conductive member and the first magnet assembly are adapted to rotate relative to each other about an axis so as to induce eddy currents in the conductive member when relative motion is produced between the conductive member and the first magnet assembly, the at least one magnet adapted to move relative to the first frame in dependence on the change in the rate of rotation of the first frame.

2 The magnetic heater of claim 1, the first magnet assembly further comprising at least one passive relative-positioning actuator adapted to move one or more magnets in at least one of an axial direction and a radial direction relative to the frame.

3. The magnetic heater of claim 2, the first frame further comprising a linkage guide, the passive relative-positioning actuator comprising:

a pivot mount adapted to couple with one or more magnets;

a bias member having a bias member first end and a bias member second end;

a first linkage arm having first linkage-arm first-end pivotally coupled to the frame distal from the axis and a first linkage-arm second-end pivotally coupled to the pivot mount;

a second linkage arm having a second linkage-arm first-end coupled in sliding and pivoting engagement with the linkage guide and coupled to the bias member second end, and a second linkage-arm second-end pivotally coupled to the pivot mount,

the linkage guide adapted to guide and restrict the second linkage-arm second-end to movement in a substantially radial direction, the bias member first end coupled to the frame preferentially positioned to apply bias when the bias member second-end is moved in a radial direction away from the axis, wherein the pivot mount moves relative to the frame when the frame is rotated at a changing rate of rotation.

4. The magnetic heater of claim 2, the frame further comprising a linkage guide, the passive relative-positioning actuator comprising:

a pivot mount adapted to couple with one or more magnets;

a bias member having a bias member first end and a bias member second end;

a first linkage arm having first linkage-arm first-end coupled in sliding and pivoting engagement with the linkage guide and coupled to the bias member second end, and a first linkage-arm second-end pivotally coupled to the pivot mount;

a second linkage arm having a second linkage-arm first-end pivotally coupled to the frame proximate to the axis, and a second linkage-arm second-end pivotally coupled to the pivot mount,

the linkage guide adapted to guide and restrict the first linkage-arm first-end to movement in a substantially radial direction, the bias member first end coupled to the frame preferentially positioned to apply bias when the bias member second-end is moved in a radial direction away from the axis, wherein the pivot mount moves relative to the first frame when the first frame is rotated at a changing rate of rotation.

5. The magnetic heater of claim 2, the passive relative-positioning actuator comprising:

a pivot mount adapted to couple with one or more magnets;

a bias member having a bias member first end and a bias member second end;

a pivot arm having pivot-arm first-end coupled in pivoting engagement with the first frame distal from the axis, and a pivot-arm second-end pivotally coupled to the pivot

mount and coupled to the bias member second end, the bias member first end coupled to the frame preferentially positioned to apply bias when the bias member second-end is moved in a radial direction away from the axis, wherein the pivot mount moves relative to the first frame when the first frame is rotated at a changing rate of rotation.

6. The magnetic heater of claim 2, the passive relative-positioning actuator comprising a bimetallic spring, wherein the first frame comprises one or more slots, each defining an axial-facing tang, the tang adapted to couple with at least one magnet, the tang comprising a first material having a first coefficient of thermal expansion and a second material having a second coefficient of thermal expansion to form a bimetallic spring, wherein as the temperature of the bimetallic spring rises, the bimetallic spring causes the tang to deflect in a preferred direction relative to the conductive member.

7. The magnetic heater of claim 2, the first frame further comprising a pin guide, the passive relative-positioning actuator comprising:

a mount adapted to couple with one or more magnets;

a guide pin coupled to the mount; and

a bias member having a bias member first-end and a bias member second-end, the pin guide adapted to slidingly receive the guide pin and restrict movement of the guide pin to a substantially radial, the bias member first-end is coupled to the frame proximate the axis, and the bias member second-end is coupled to the mount.

8. The magnetic heater of claim 1, wherein the conductive member is disc shaped.

9. The magnetic heater of claim 1, wherein the conductive member comprises a substantially disc-shaped center portion and a plurality of arms extending from the center portion.

10. The magnetic heater of claim 1, wherein the conductive member comprises a plurality of conductive portions separated by non-conductive portions.

11. The magnetic heater of claim 1, wherein the conductive member comprises a plurality of nested rings separated by non-conductive portions.

12. A magnetic heater of claim 1, further comprising:

a second magnet assembly comprising a second frame and at least one magnet movably coupled to the second frame, the at least one magnet disposed a second distance adjacent the conductive member first side, wherein the second magnet assembly and the second frame are adapted to rotate relative to each other about an axis so as to induce eddy currents in the conductive member when relative motion is produced between the second magnet assembly and the second frame, the at least one magnet adapted to move relative to the second frame in dependence with the rate of rotation of the second frame.

13. The magnetic heater of claim 12, wherein the at least one magnet of the first and second magnet assemblies face each other and rotate in unison with each other.

14. The magnetic heater of claim 12, wherein the first distance and the second distance are equal.

15. The magnetic heater of claim 1, further comprising:

a fluid path proximate the conductive member, arranged such that heat generated in the conductive member is absorbable by fluid within the fluid path.

16. The magnetic heater of claim 15, further comprising a fluid driver adapted to drive fluid within the fluid path.

17. The magnetic heater of claim 1, further comprising:

a shaft coupled with the magnet assembly adapted to couple with a drive mechanism to rotate the magnet assembly about the axis.

18. A magnetic heater, comprising:

a magnet assembly having a magnet assembly first side and a magnet assembly second side, the magnet assembly comprising at least one magnet; and

a first conductive member assembly comprising a first frame and at least one conductor movably coupled to the first frame, the at least one conductor disposed a first distance adjacent the magnetic assembly first side, wherein the first conductive member assembly and the first frame are adapted to rotate relative to each other about an axis so as to induce eddy currents in the at least one conductor when relative motion is produced between the magnet assembly and the first frame, the at least one conductor adapted to move relative to the first frame in dependence with the rate of rotation of the first frame.

19 The magnetic heater of claim 18, the first conductive member assembly further comprising at least one passive relative-positioning actuator adapted to move one or more conductors in at least one of an axial direction and a radial direction relative to the frame.

20. The magnetic heater of claim 19, the first frame further comprising a linkage guide, the passive relative-positioning actuator comprising:

a pivot mount adapted to couple with one or more conductors;

a bias member having a bias member first end and a bias member second end;

a first linkage arm having first linkage-arm first-end pivotally coupled to the frame distal from the axis and a first linkage-arm second-end pivotally coupled to the pivot mount;

a second linkage arm having a second linkage-arm first-end coupled in sliding and

pivoting engagement with the linkage guide and coupled to the bias member second end, and a second linkage-arm second-end pivotally coupled to the pivot mount,

the linkage guide adapted to guide and restrict the second linkage-arm second-end to movement in a substantially radial direction, the bias member first end coupled to the frame preferentially positioned to apply bias when the bias member second-end is moved in a radial direction away from the axis, wherein the pivot mount moves relative to the frame when the frame is rotated at a changing rate of rotation.

21. The magnetic heater of claim 19, the frame further comprising a linkage guide, the passive relative-positioning actuator comprising:

a pivot mount adapted to couple with one or more conductors;

a bias member having a bias member first end and a bias member second end;

a first linkage arm having first linkage-arm first-end coupled in sliding and pivoting engagement with the linkage guide and coupled to the bias member second end, and a first linkage-arm second-end pivotally coupled to the pivot mount;

a second linkage arm having a second linkage-arm first-end pivotally coupled to the frame proximate to the axis, and a second linkage-arm second-end pivotally coupled to the pivot mount,

the linkage guide adapted to guide and restrict the first linkage-arm first-end to movement in a substantially radial direction, the bias member first end coupled to the frame preferentially positioned to apply bias when the bias member second-end is moved in a radial direction away from the axis, wherein the pivot mount moves relative to the first frame when the first frame is rotated at a changing rate of rotation.

22. The magnetic heater of claim 19, the passive relative-positioning actuator comprising:

a pivot mount adapted to couple with one or more conductors;

a bias member having a bias member first end and a bias member second end;

a pivot arm having pivot-arm first-end coupled in pivoting engagement with the first frame distal from the axis, and a pivot-arm second-end pivotally coupled to the pivot mount and coupled to the bias member second end, the bias member first end coupled to the frame preferentially positioned to apply bias when the bias member second-end is moved in a radial direction away from the axis, wherein the pivot mount moves relative to the first frame when the first frame is rotated at a changing rate of rotation.

23. The magnetic heater of claim 19, the passive relative-positioning actuator comprising a bimetallic spring, wherein the first frame comprises one or more slots, each defining an axial-facing tang, the tang adapted to couple with at least one conductor, the tang comprising a first material having a first coefficient of thermal expansion and a second material having a second coefficient of thermal expansion to form a bimetallic spring, wherein as the temperature of the bimetallic spring rises, the bimetallic spring causes the tang to deflect in a preferred direction relative to the magnet assembly.

24. The magnetic heater of claim 19, the first frame further comprising a pin guide, the passive relative-positioning actuator comprising:

a mount adapted to couple with one or more conductors;

a guide pin coupled to the mount; and

a bias member having a bias member first-end and a bias member second-end, the pin guide adapted to slidingly receive the guide pin and restrict movement of the guide pin to a substantially radial, the bias member first-end is coupled to the frame proximate the axis, and the bias member second-end is coupled to the mount.

25. A magnetic heater of claim 18, further comprising:

a second conductive member assembly comprising a second frame and at least one conductor movably coupled to the second frame, the at least one conductor disposed a second distance adjacent the magnet assembly first side, wherein the second conductive

member assembly and the second frame are adapted to rotate relative to each other about an axis so as to induce eddy currents in the at least one conductor when relative motion is produced between the second conductive member assembly and the second frame, the at least one conductor adapted to move relative to the second frame in dependence with the rate of rotation of the second frame.

26. The magnetic heater of claim 25, wherein the at least one conductor of the first and second conductive member assemblies face each other and rotate in unison with each other.

27. The magnetic heater of claim 25, wherein the first distance and the second distance are equal.

28. A method of generating heat, comprising:

disposing at least one magnet on a first and second frame proximate each of a first and second side, respectively, of at least one conductive member;

cyclically varying a magnetic field applied by the at least one magnet on at least a portion of the conductive member so as to heat the conductive member thereby; and

passively adjusting a rate of heat generation in the conductive member while the conductive member is being heated by the at least one magnet, wherein each of the at least one magnet is adapted to move relative to the first and second frame in dependence on the rate of rotation of the first an second frame.

29. A magnetic heater apparatus, comprising:

a rear housing;

a first end plate;

a heater housing;

a magnetic heater;

a second end plate; and

a blower housing, the magnetic heater comprising:

a shaft;

a first magnet assembly;

a conductive member;

a second magnet assembly; and

a fluid driver, the first and second magnet assemblies having a plurality of magnets, the conductive member disposed between and coaxial with the first and second magnet assemblies, the conductive member coupled with the shaft and adapted to rotate with respect to the first and second magnet assemblies, the shaft adapted to couple with an energy source, the rear housing coupled adjacent the first end plate and comprising apertures adapted to accept the shaft there through, the first end plate coupled adjacent the heater housing defining a volume adapted to contain the first and second magnet assemblies and conductive member, the second end plate coupled adjacent the heater housing defining a side of the volume, the heater housing comprises a fluid outlet, the second end plate comprises a second end plate aperture defining a portion of a fluid path, the fluid driver coupled to the shaft and located adjacent the second end panel on the opposite side from the second magnet assembly, the blower housing coupled adjacent the second end panel adapted to enclose the fluid driver there between, the blower housing defining a fluid inlet aperture defining a portion of the fluid path, the fluid path defined by the fluid inlet aperture, the fluid driver, the second end plate aperture, the heater housing and the fluid outlet.

30. The magnetic heater apparatus of claim 29, further comprising:

a spacing adjustment assembly comprising:

a knob;

a threaded spacer having a first spacer end and a second spacer end;

a first retention coupler; and

a second retention coupler, the first retention coupler disposed adjacent the first magnet assembly and the second retention coupler disposed adjacent the second magnet assembly, the threaded spacer disposed between the first and second magnet assemblies, the first spacer end coupled with the first retention coupler, the second spacer end disposed through the second retention coupler and coupled to the knob, wherein turning the knob in a first direction reduces the spacing between the first and second magnet assemblies and turning the knob in an opposite direction increases the spacing between the first and second magnet assemblies.

31. The magnetic heater apparatus of claim 29, the first and second magnet assemblies further comprising:

a frame; and

at least one passive relative-positioning actuator adapted to move one or more magnets in at least one of an axial direction and a radial direction relative to the frame, wherein the relative motion is produced in dependence on the change in the rate of rotation of the frame.